

circuits and negative circuits as possible so that no current degradation is caused, and accommodating them closely in the battery case without breaking a separator in a square-shaped nonaqueous electrolyte secondary battery.

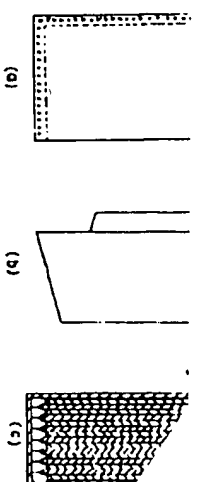
**CONSTITUTION:** When being wrapped in a separator 3, a strip-like positive electrode 1 is folded back at one of edges along the longitudinal direction of the positive electrode 1, and is fused at the other end to form a fused part 3a. Accordingly, the positive electrode 1 can be enlarged while no ineffective space is generated in a battery case 5. This bag-like separator 3 is pinched in a valley fold of a negative electrode 4 formed in such a way that it is bent like a folding screen so that the fused part 3a is contacted therewith. Accordingly, rupture of the separator 3 is prevented while the current deviation at the fold of the negative electrode is suppressed by utilizing the nature that the fused part 3a of the separator 3 has no function as a separator.

# (54) REPAIRING AND INSPECTING METHOD FOR STORAGE BATTERY FOR TRANSPORTATION EQUIPMENT AND DEVICE THEREFOR

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- (71) MATSUSHITA ELECTRIC IND CO LTD
- (72) KATSUHIRO TAKAHASHI(5)
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**PURPOSE:** To carry only a storage battery so as to enable appropriate repairing rapidly by recording information on the performance, conditions, and the like of the storage battery in recording media, diagnosing whether or not repairing is needed and repairing method with a reader installed at a site where repairing is performed.

**CONSTITUTION:** Forecast information on the degradation of starting characteristics or the like is measured by means of an electrolyte level sensor 2, a starting voltage selecting circuit 3, a key-off voltage selecting circuit 4, a digital timer 5, and a digital thermometer 6 based on, for example, the start time voltage, the key-off voltage, the level of an electrolyte, an their tendencies with the lapse of time in a storage battery 1 mounted on transportation equipment, and are recorded in a memory card 8a in a cassette device 7. Thus, when the storage battery 1 is out of order, only the card 8a is carried into a site where repairing is performed to diagnose it by using a specified analyzing an computing device 10 so as to provided appropriate repairing rapidly.



2: positive electrode collector

